

# Work Order ID 63951

Monday, November 22, 2010 9:15:01 AM

Page 1

Item ID: D117-762-011

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube

Start Date: 11/22/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 11/29/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan:

Date: 10-11-22 Tooling:

Date:

Run Start

QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

DSI9435

Rev A

IIN-D117-762

Rev A

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D117-762-011

CHG002

8/20/23

OK for BG 11/01/03

110

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

10/12/20 SP

1363953

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 63951

Monday, November 22, 2010 9:15:01 AM

Page 2

Item ID: D117-762-011

Accept

Setup Start

Revision ID:

Item Name: Skidtube

Stop

Start Date: 11/22/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 11/29/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

120

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

8/10/23

70

130

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D117-762-011

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

A PAA63953

11/23 ①

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

ck 11/01/03

MF 10-12-23

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Monday, November 22, 2010 9:15:05 AM

Page 1

Work Order ID: 63951

Parent Item: D117-762-011

Parent Item Name: Skidtube



Start Date: 11/22/2010

Required Date: 11/29/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 07.06.11 New Issue EC  
IPP Rev:B 08-02-22 change to revA DD verified by:ec  
IPP Rev C 08.12.19 incorporated DSI9435 EC verified by:DD

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

|              |  |              |    |  |  |     |      |        |   |   |  |  |  |
|--------------|--|--------------|----|--|--|-----|------|--------|---|---|--|--|--|
| D117-762-041 |  | Manufactured | No |  |  | 110 | Each | 0.0000 | 1 | 1 |  |  |  |
|--------------|--|--------------|----|--|--|-----|------|--------|---|---|--|--|--|



Replacement Skidtube

|        |  |           |    |  |  |     |      |           |   |   |  |  |  |
|--------|--|-----------|----|--|--|-----|------|-----------|---|---|--|--|--|
| AN3C4A |  | Purchased | No |  |  | 110 | Each | 2,115.000 | 8 | 8 |  |  |  |
|--------|--|-----------|----|--|--|-----|------|-----------|---|---|--|--|--|



BOLT

Location

Loc Qty

Loc Code

ST303

3

115438

3

ST350

2112

115300

42

115589

70

115936

1000

116075

1000

|           |              |           |    |  |  |     |      |         |   |   |  |  |  |
|-----------|--------------|-----------|----|--|--|-----|------|---------|---|---|--|--|--|
| AN960C10L | NAS1149C0332 | Purchased | No |  |  | 110 | Each | 25.0000 | 8 | 8 |  |  |  |
|-----------|--------------|-----------|----|--|--|-----|------|---------|---|---|--|--|--|



washer

Location

Loc Qty

Loc Code

ST245

25

107534

25

|         |  |              |    |  |  |     |      |        |   |   |  |  |  |
|---------|--|--------------|----|--|--|-----|------|--------|---|---|--|--|--|
| D3512-1 |  | Manufactured | No |  |  | 110 | Each | 7.0000 | 2 | 2 |  |  |  |
|---------|--|--------------|----|--|--|-----|------|--------|---|---|--|--|--|



Wearplate

Location

Loc Qty

Loc Code

ST500

7

61948

7

B63953 10/11/23

10/12/20

11/6028 10/12/20

B63954 10/12/20

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Monday, November 22, 2010 9:15:05 AM

Page 2

Work Order ID: 63951

Parent Item: D117-762-011

Parent Item Name: Skidtube

Start Date: 11/22/2010

Required Date: 11/29/2010

Start Qty: 1.00

Required Qty: 1.00

AN6-52A

Purchased

No

110

Each

21.0000

2

10/12/2010



Bolt

Location

Loc Qty

Loc Code

ST344

21

112314

21

2

MS21042L6

Purchased

No

110

Each

202.0000

2

10/12/2010



Nut

Location

Loc Qty

Loc Code

ST300

202

111578

4

114495

1

115300

147

116102

50

2

D3864-1

Manufactured

No

110

Each

17.0000

4

10/12/2010



Bushing

Location

Loc Qty

Loc Code

ST092

17

62880

17

✓

Monday, November 22, 2010 9:15:05 AM

Shop Packet Print

Page 2

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



## 5.0 PARTS LIST

## 5.1 D117-762-011 Skidtube Parts List

| Item | Qty<br>-011 | Qty<br>-041 | Part Number         | Description              |
|------|-------------|-------------|---------------------|--------------------------|
|      | X           |             | D117-762-011        | SKIDTUBE INSTALLATION    |
|      | 1           | X           | D117-762-041        | REPLACEMENT SKIDTUBE     |
| 1    |             | 1           | D3582-041           | SKIDTUBE ASSEMBLY        |
| 2    | 2           |             | **1121-51002        | SKID SHOE                |
| 3    | 2           |             | **1121-51102        | CLAMPING RING            |
| 4    | 8           |             | **LN9380M8X45       | HEXAGON BOLT             |
| 5    | 8           |             | **LN9023A8-1.4544.9 | LOCKING WASHER           |
| 6    | 8           |             | **LN9025-0815K      | WASHER (OR LN9025-0815L) |
| 10   |             | 1           | *D2965              | CAP                      |
| 11   |             | 2           | ***AELS-1032-225    | INSERT                   |
| 12   |             | 2           | *AN3C5A             | BOLT                     |
| 13   |             | 2           | *AN960C10L          | WASHER                   |
| 20A  |             | 1           | *D3508-9            | WEARPLATE                |
| 20B  |             | 1           | *D3558-9            | GASKET                   |
| 21A  |             | 1           | *D3508-3            | WEARPLATE                |
| 21B  |             | 1           | *D3558-3            | GASKET                   |
| 22A  |             | 1           | *D3508-11           | WEARPLATE                |
| 22B  |             | 1           | *D3558-11           | GASKET                   |
| 23A  |             | 1           | *D3508-13           | WEARPLATE                |
| 23B  |             | 1           | *D3558-13           | GASKET                   |
| 24   |             | 36          | *AELS-1032-130      | INSERT                   |
| 25   | 8           | 28          | *AN3C4A             | BOLT                     |
| 26   | 8           | 28          | *AN960C10L          | WASHER                   |
| 27   | 2           |             | D3512-1             | WEARPLATE                |
| 30   |             | 2           | *AELS-1032-130      | INSERT                   |
| 31   |             | 2           | *AN4-4A             | BOLT                     |
| 32   |             | 2           | *AN960JD416L        | WASHER                   |
| 40   |             | 2           | *D3492-049          | PLUG ASSEMBLY            |
| 41   |             | 2           | ***NAS1611-016      | O-RING                   |
| 42   |             | 2           | *D3492-051          | PLUG ASSEMBLY            |
| 43   |             | 2           | ***NAS1611-015      | O-RING                   |
| 44   |             | 6           | *D3492-053          | PLUG ASSEMBLY            |
| 45   |             | 6           | ***NAS1611-012      | O-RING                   |
| 50   | 2           |             | AN4-51A             | BOLT                     |
| 51   | 4           |             | D2972               | BUSHING                  |
| 52   | 2           |             | MS21042L4           | NUT (OR MS21042-4)       |

\* PART IS INCLUDED WITH D3582-041 SKIDTUBE ASSEMBLY

\*\* TO BE SUPPLIED BY CUSTOMER, LISTED AS REFERENCE ONLY

\*\*\* DENOTES PART IS INCLUDED WITH ASSEMBLY ABOVE

• COPYRIGHT © 2007 BY DART AEROSPACE USA, INC. •  
 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED  
 OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

Revision: A

Date: 07.04.27

REFERENCE ONLY

5.1 D117-762-011 SKIDTUBE PARTS LIST (IIN-D117-762)  
32.8 D117-762-011 SKIDTUBE PARTS LIST (ICA-D117-762)

| ITEM | Qty<br>-011 | Qty<br>-041 | PART NUMBER  | DESCRIPTION           |
|------|-------------|-------------|--------------|-----------------------|
|      | X           |             | D117-762-011 | SKIDTUBE INSTALLATION |
|      | 1           | X           | D117-762-041 | REPLACEMENT SKIDTUBE  |

IS:

|    |   |  |           |                    |
|----|---|--|-----------|--------------------|
| 50 | 2 |  | AN6-52A   | BOLT               |
| 51 | 4 |  | D3864-1   | BUSHING            |
| 52 | 2 |  | MS21042L6 | NUT (OR MS21042-6) |

WAS:

|    |   |  |           |                    |
|----|---|--|-----------|--------------------|
| 50 | 2 |  | AN4-51A   | BOLT               |
| 51 | 4 |  | D2972     | BUSHING            |
| 52 | 2 |  | MS21042L4 | NUT (OR MS21042-4) |

TO UPGRADE A D117-762-011 SKIDTUBE FROM CHG 001 TO CHG 002, THE FOLLOWING KIT CAN BE OBTAINED FROM DART:

| Qty<br>-041 | PART NUMBER  | DESCRIPTION                     |
|-------------|--------------|---------------------------------|
| X           | DSI 9435-011 | GROUND HANDLING HARDWARE CHANGE |
| 2           | AN6-52A      | BOLT                            |
| 4           | D3864-1      | BUSHING                         |
| 2           | MS21042L6    | NUT (OR MS21042-6)              |

|            |          |  |              |
|------------|----------|--|--------------|
| DESIGN     | PH       | <b>DART AEROSPACE USA, INC</b>   |              |
| DRAWN      | PH       | PORT HADLOCK, WA   |              |
| CHECKED    |          | DRAWING NO.  | REV. A       |
| MFG. APPR. | N/A      | DSI 9435   | SHEET 2 OF 2 |
| APPROVED   |          | TITLE  | SCALE        |
| DE APPR.   |          | GROUND HANDLING HARDWARE CHG NTS   |              |
| DATE       | 08.12.04 | <small>COPYRIGHT © 2008 BY DART AEROSPACE USA, INC<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> |              |